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1992 Feature Article - An Introduction to Financial Accounts

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Introduction

ABS has recently published Australian National Accounts: Financial Accounts (cat. no. 5232.0). The financial accounts were developed according to guidelines provided by the United Nations' A System of National Accounts, and have three basic components, namely statistics on:

- **levels** (stocks) of financial assets and liabilities;
- **transactions** in financial assets and liabilities (flow of funds); and
- **reconciliations**.

A further set of accounts, national and sector balance sheet accounts (still under development in Australia), will show the stock of all assets (financial non-financial) and liabilities by sector at the end of each accounting period.

The purpose of financial accounts is to provide data for analysing the saving flows and investment behaviour of institutional sectors, relationships between the financial and "real" sides of the economy, and intersectoral financial claims.

Taken together, the income and outlay, capital and flow of funds accounts of the Australian National Accounts (ANA) constitute a complete statement of sources and applications of funds for each sector of the economy. The flow of funds accounts provide a framework for analysing how saving flows are channelled from the surplus sectors to the deficit sectors of the economy. As well, they incorporate the savings flows with the rest of the world that are recorded in the overseas transactions and capital accounts of the balance of payments. They highlight the important role of financial intermediation, a role not evident from the production or income and outlay accounts of the ANA.

Stocks of Financial Assets and Liabilities

Estimates of the levels of financial assets and liabilities are compiled for each of four domestic institutional sectors:

- financial enterprises;
- households and unincorporated enterprises;
- corporate trading enterprises; and
- general government

and for the overseas (rest of world) sector.

By rearranging the same basic data, estimates are also compiled for the level of financial assets and liabilities at market prices for each of the following financial instruments:

- deposits;
- loans;
- bills of exchange;
- promissory notes;
- Treasury notes;
- bank certificates of deposit;
- long term debt securities; and
- shares.

Transactions in Financial Assets and Liabilities: The Flow of Funds

Financial transactions are presented in the flow of funds matrix. (See Tables 1 and 2 below.) This matrix provides a framework for analyzing the relationships between saving, capital formation and financial transactions. It is linked to the income and expenditure accounts of the ANA, and can be divided into two parts: the capital account; and the financial transactions account. The relationships are depicted in Diagram 1.

DIAGRAM 1. NATIONAL ACCOUNTING RELATIONSHIPS

INCOME AND OUTLAY ACCOUNT	
Final consumption expenditure	Wages, salaries and supplements
Current transfers paid	Net operating surplus of trading enterprises
<i>Saving</i> ←	Current transfers received
Total disbursements	Total receipts
CAPITAL ACCOUNT	
Fixed capital expenditure	→ <i>Saving</i> Consumption of fixed capital
Increase in stocks	
Net purchases of land and intangible assets	Capital transfers received
<i>Net lending</i> ←	
Gross accumulation	Finance of gross accumulation
FINANCIAL TRANSACTIONS ACCOUNT	
Cash and deposits	Cash and deposits
Loans and placements	Loans and placements
Short term debt securities	Short term debt securities
Long term debt securities	Long term debt securities
Equities and units	Equities and units
Other claims	Other claims
<i>Change in financial position</i>	
Net incurrence of liabilities	Net acquisition of financial assets

The first five columns of the matrix correspond to the four domestic sectors and the rest of world sector. The sixth column shows the statistical discrepancy. (The statistical discrepancy arises in the domestic production account as the difference between income and expenditure estimates of GDP; it is distinct from the balancing item discussed below.)

The **capital account** forms the upper half of the matrix. It shows the funds accumulated during the period by each sector for the purchase of assets (**Finance of gross accumulation**) together with estimates of how the funds are spent (**Gross accumulation**). Such funds can be used to purchase real assets (plant and equipment, inventories, and land and intangibles) or financial assets (net lending to other sectors).

The **financial transactions account** forms the lower half of the matrix. It shows the net financial transactions of each sector, classified by financial instrument. The total column indicates the net change in the market for each financial instrument during the period. Rows under the heading **Net transactions in financial assets** show net acquisition/reduction in each sector's assets. Rows under the heading **Net transactions in liabilities** show net incurrence/reduction in each sector's liabilities. The **Change in financial position** is the excess of net acquisition/reduction of financial assets over net incurrence/reduction of financial liabilities.

In concept, a sector's **Net lending** (in the capital account) should be the same as its **Change in**

financial position (in the financial transactions account), because both measure the sector's net purchases of financial assets. The change in the balance of financial claims between sectors is the mechanism for transferring funds from surplus sectors to deficit sectors (as a general rule, transactions between economic entities in the same sector are netted out).

This can be represented as follows:

$$S + DL = I + DFA$$

where

S = saving

DL = Change in liabilities

I = investment in nonfinancial assets

(i.e. gross fixed capital expenditure **plus** change in stocks **plus** net purchases of land and intangible assets)

and DFA = change in financial assets.

This can be rearranged as follows:

$$S - I = DFA - DL$$

Therefore, since

S - I = net lending (NL)

and Symbol:

DFA - DL = change in financial position (CFP)

then NL = CFP.

In practice, however, these identities are unlikely to hold, owing to errors and omissions in both the capital account and the financial transactions account. Thus, there is a **Balancing item** which shows the difference between alternative estimates of the same concept.

The rest of the world column in the matrix is an alternative representation of Australia's balance of payments. In the flow of funds, these transactions are represented from the point of view of nonresidents: current transactions are truncated to the **Balance on current account**; reinvested earnings attributable to direct investors are omitted; and changes in assets are not netted against changes in liabilities.

The cell at the intersection of the net lending row and the rest of the world column is the balance of payments **Balance on current account** (excluding reinvested earnings and with opposite sign). The cell below is the balance of payments **Balancing item** (again with opposite sign). The **Change in financial position** for the rest of the world is the balance of payments **Balance on capital account** (again excluding reinvested earnings).

The financial transactions accounts also include **sectoral flow tables** which show intersectoral transactions in financial assets and liabilities, classified by financial instrument. For most instruments, the asset records are disaggregated to show the sector of the issuing party.

Reconciliations

The change in levels implied by stock data does not match exactly the financial transactions account because, for example, of valuation changes in closing levels. Reconciliation data are used in the following manner:

opening level

plus net financial transactions

plus reconciliations

equals closing level

where

reconciliations include the valuation effects implicit in the closing level, together with adjustments to compensate for changes in the coverage of financial surveys.

Flow of Funds Data

Tables 1 and 2 are flow of funds matrices for 1989-90 and 1990-91, extracted from Australian National Accounts: Financial Accounts (cat. no. 5232.0). This publication also contains quarterly data on financial transactions dissected by instrument and sector as well as estimates of levels of financial assets and liabilities and reconciliations. For more information on sources, methods and qualifications attaching to levels and flows statistics, see the Explanatory Notes at the back of the publication. Section 20 of Australian National Accounts Concepts, Sources and Methods (cat. no. 5216.0) provides further details on the compilation of financial accounts statistics.

TABLE 1. FLOW OF FUNDS MATRIX FINANCIAL YEAR 1989-90

	Net transactions during the year						
	1.00 Corporate Trading	2.00 Financial Enterprises	3.00 General Government	4.00 Households & Unincorporated	5.00 Rest of World	9.00 Discrepancy	10.00 Total
CAPITAL ACCOUNT							
1.00 C Finance of gross accumulation	24,303	2,480	12,331	38,102	-	-	77,216
2.00 C Domestic Saving	-3,437	113	7,298	17,914	-	-	21,888
3.00 C Consumption of fixed capital	26,117	2,366	6,678	20,167	-	-	55,328
4.00 C Net capital transfers	1,623	-	-1,645	21	-	-	-
5.00 C Gross accumulation	24,303	2,480	12,331	38,102	-	-	77,216
6.00 C Gross fixed capital expenditure	42,298	7,067	8,475	31,586	-	-	89,426
7.00 C Increase in stocks	4,673	-	36	-52	-	-	4,657
8.00 C Transactions in land and intangibles	250	-63	-187	-	-	-	-
9.00 C Net Lending	-22,918	-4,524	4,007	6,568	22,515(a)	-5,648	-16,867(b)
Balancing item	-12,917	-1,258	-1,870	16,054	- -5,657(a)	5,648	

FINANCIAL TRANSACTIONS ACCOUNT

Change in Financial Position	-35,835	-5,782	2, 137	22,622	16,858	-	-
1.00 A Net transactions in financial assets	-11,671	46,764	6,807	41,750	24,868	-	108,518
2.00 A Cash and deposits	-4,837	15	1,317	16,901	339	-	13,735
3.00 A Loans and placements	-2,238	35,464	1,580	1,465	5,638	-	41,909
4.00 A Short-term debt securities	-1,961	2,051	-1,400	2,462	5,032	-	6,184
5.00 A Long-term debt securities	22	1,444	1,686	1,363	9,927	-	14,442
6.00 A Insurance technical reserves	-	-	20,716	-		20,716	
7.00 A Equities and units in trusts	-995	4,127	2,844	-3,405(c)	3,992	-	6,563
8.00 A Other Financial claims	594	-5,806	1,008	2,248	-60	-	-2,016
9.00 A Foreign claims	-2,256	9,469	-228	-	-	-	6,985
1.00 L Net transactions in liabilities	24,164	52,546	4,670	19,128	8,010	-	108,518
2.00 L Cash and deposits	-	13,672	63	-	-	-	13,735
3.00 L Loans and placements	16,757	4,516	1,770	18,866	-	-	41,909
4.00 L Short-term debt securities	6,104	34	-1,235	256	1,025	-	6,184
5.00 L Long-term debt securities	1,881	8,914	3,647	-	-	-	14,442
6.00 L Insurance technical reserves	20,716	-	-	-		20,716	
7.00 L Equities and units in trusts	1,429	5,134	-	-	-	-	6,563
(c) 8.00 L Other Financial claims	-2,007	-440	425	6	-	-	-2,016
9.00 L Foreign-claims	-	-		6,985		6,985	

(a) These series are consistent with the December Quarter 1991 release of Balance of Payments, Australia (cat. no. 5302.0) (b) Total of domestic sectors only. (c) These estimates are considered to be of poor quality. They should be used cautiously. NOTE: All items in this table less than \$100 million should be used cautiously.

TABLE 2. FLOW OF FUNDS MATRIX FINANCIAL YEAR 1990-91

	Net transactions during the year						
	1.00 Corporate Trading	2.00 Financial Enterprises	3.00 General Government	4.00 Households & Unincorporated	5.00 Rest of World	9.00 Discrepancy	10.00 Total
CAPITAL ACCOUNT							
1.00 C Finance of gross accumulation	22,331	4,004	6,044	33,547	-	-	65,926
2.00 C Domestic Saving	-7,040	1,466	734	12,870	-	-	8,030
3.00 C Consumption of fixed capital	27,674	2,532	7,034	20,656	-	-	57,896
4.00 C Net capital transfers	1,697	6	-1,724	21	-	-	-
5.00 C Gross accumulation	22,331	4,004	6,044	33,547	-	-	65,926
6.00 C Gross fixed capital expenditure	40,523	4,330	8,470	28,014	-	-	81,337
7.00 C Increase in stocks	-608	-	62	-444	-	-	-990
8.00 C Transactions in land and intangibles	123	-56	-67	-	-	-	-
9.00 C Net Lending	-17,707	-270	-2,421	5,977	15,968(a)	-1,547	-14,421(b)
Balancing item	-220	6,295	-399	-6,963	-260(a)	1,547	-
FINANCIAL TRANSACTIONS ACCOUNT							
Change in Financial Position	-17,927	6,025	-2,820	-986	15,708	-	-
1.00 A Net transactions in financial assets	-3,181	45,888	6,894	8,415	17,308	-	75,324
2.00 A Cash and deposits	-1,452	-11	-473	4,145	1,345	-	3,554
3.00 A Loans and placements	-247	21,877	5,367	-120	889	-	27,766
4.00 A Short-term debt securities	2,150	9,074	123	-3,995	3,681	-	11,033
5.00 A Long-term debt securities	164	6,610	-481	-5,775	4,656	-	5,174

6.00 A Insurance technical reserves	-	-	-	16,772	-	-	16,772
7.00 A Equities and units in trusts	-244	-4,433	-1,246	-11,510(c)	-6,644	-	569
8.00 A Other Financial claims	-920	923	539	8,898	93	-	9,533
9.00 A Foreign claims	-2,632	2,982	573	-	-	-	923
1.00 L Net transactions in liabilities	14,746	39,863	9,714	9,401	1,600	-	75,324
2.00 L Cash and deposits	-	3,517	37	-	-	-	3,554
3.00 L Loans and placements	8,303	7,790	2,114	9,559	-	-	27,766
4.00 L Short-term debt securities	529	4,179	5,806	-158	677	-	11,033
5.00 L Long-term debt securities	2,571	1,303	1,300	-	-	-	5,174
6.00 L Insurance technical reserves	-	16,772	-	-	-	-	16,772
7.00 L Equities and units in trusts	1,224	-654	-	-	-	-	569
(c) 8.00 L Other Financial claims	2,119	6,956	458	-	-	-	9,533
9.00 L Foreign claims	-	-	-	-	923	-	923

(a) These series are consistent with the December Quarter 1991 release of Balance of Payments, Australia (cat. no. 5302.0) (b) Total of domestic sectors only. (c) These estimates are considered to be of poor quality. They should be used cautiously. NOTE: All items in this table less than \$100 million should be used cautiously.

Table 3 compares net lending and change in financial position. It summarises the flow of funds matrices. The data shown for the national capital account are broadly consistent with those published in the Australian National Accounts, National Income and Expenditure 1990-91 (cat. no. 5204.0). Estimates of the change in financial position for Households are very sensitive to the methods used to compile equity market statistics; in most instances, data for households are derived as a residual. This suggests that the net lending measure is to be preferred. Estimates of the change in financial position for Financial Enterprises are based on direct survey methods, while the corresponding net lending measure is calculated as a residual in the Capital Account. In this case, the direct measure is to be preferred.

TABLE 3. COMPARISON OF NET LENDING (ANA) AND CHANGE IN FINANCIAL POSITION (FLOWS)
(\$ thousand million)

Sector	1989-90			1990-91		
	ANA	Flows	Balancing	ANA	Flows	Balancing
Corporate Trading	-22.9	-35.8	-12.9	-17.7	-17.9	-0.2
Financial Enterprises	-4.5	-5.8	-1.2	-0.3	6	+6.3
General Government	+4.0	+2.1	-1.8	-2.4	-2.8	-0.3
Households	+6.6	+22.6	+16.1	+6.0	-1	-6.9
Rest of World	+22.5(a)	+16.9(b)	-5.7(c)	+16.0(a)	+15.7(b)	-0.3(c)

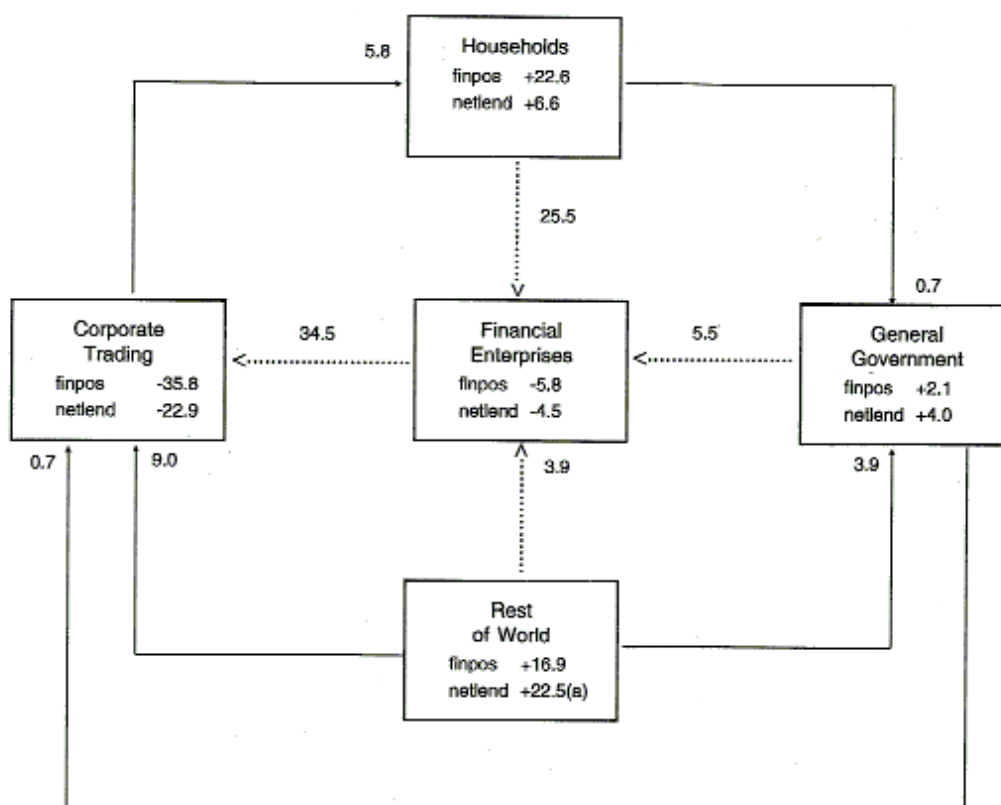
(a) Consistent with Balance of Payments current account balance as published in Balance of Payments, Australia December 1991 Quarter (cat. no. 5302.0).

(b) Consistent with Balance of Payments capital account balance as published in Balance of Payments, Australia December 1991 Quarter (cat. no. 5302.0), and net capital transactions as published in International Investment Position, Australia December 1991 Quarter (cat. no. 5306.0).

(c) consistent with Balance of Payments balancing item as published in Balance of Payments, Australia December 1991 Quarter (cat. no. 5302.0).

Charts 1 and 2 also summarise the annual flow of funds data. They reduce the financial transactions between pairs of sectors to a single net value, depicted as a flow from the sector holding an asset (the lender or security purchaser) to the sector incurring a liability (the borrower or security issuer). For example, in Chart 1, the Rest of World sector acquired net financial assets issued by Financial Enterprises of \$3.9 billion during 1989-90.

CHART 1. NET INTER-SECTOR FINANCIAL FLOWS, PERIOD 1989-90, (\$ THOUSAND MILLION)



Key to chart 1

Arrow shows flow from lender to borrower

_____ = direct lending/borrowing

..... = intermediated lending/borrowing

finpos = change in financial position

netlend = net lending as shown in ANA capital account

The sum of the flows shown does not equal finpos totals due to 'other financial claims' (mainly accounts payable/receivable) not being allocated by counterparty sector.

The net unallocated amounts by sector are:

Corporate Trading: 2.6

Financial Enterprises: -5.3

General Government: 0.5

Households: 2.1

Rest of World: -

(a) As shown in the December quarter. 1991 release of Balance of Payments, Australia (cat. no. 5302.0)

Net asset flows can arise from an increase in assets or a decrease in liabilities or a combination of both. For example, a large component of the \$5.5 billion net flow from General Government to Financial Enterprises shown in Chart 1 was a reduction in long-term debt securities issued by General Government and held by Financial Enterprises.

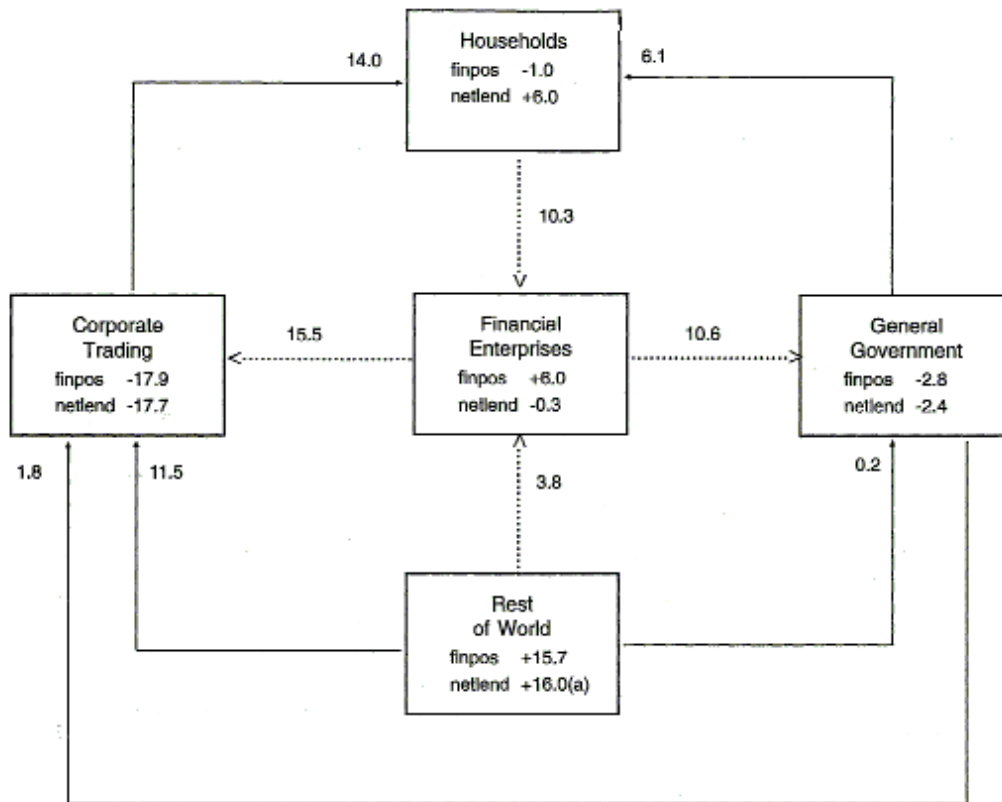
Also, in such summary presentations, equity flows (such as the issue and purchase of shares) are not distinguished from flows in repayable liabilities (such as loans and debt securities). For example, a large component of the \$9.0 billion flow shown in Chart 1 from the Rest of the World to Corporate Trading Enterprises in 1989-90 was acquisition of equities.

In addition to the flows between sectors, Charts 1 and 2 show the **net change in financial position** of each sector. This is the sum of the flows from (positive sign) and to (negative sign) a sector, plus net unallocated financial claims. Unallocated financial claims are those which cannot be dissected by the sector of the counterparty; they comprise trade payables/receivables, sundry accruals and "bank float" (items in transit). For example, in 1989-90 the **net change in financial position** of Financial Enterprises was -\$5.8 billion (they incurred more liabilities than they acquired financial assets), which resulted from net borrowing from Households (-\$25.5 billion), from General Government (-\$5.5 billion), from Rest of the World (-\$3.9 billion) and unallocated liabilities (-\$5.3 billion) and acquisition of net financial assets in Corporate Trading Enterprises (\$34.5 billion).

Net change in financial position is an indication of financial surplus or financing requirement; in particular, negative net changes in financial position indicate financing requirements for capital expenditure or acquisition of stocks. During 1989-90, Households showed a financial surplus (over and above their own requirements for capital expenditure and stocks), as did General Government. These domestic sectors mobilised their surpluses to finance the demands of Corporate Trading Enterprises via Financial Enterprises, thus demonstrating the inter-mediation role played by Financial Enterprises. However, the domestic surpluses were not enough to satisfy the demands of both Corporate Trading Enterprises and Financial Enterprises, and the Rest of the World invested funds in Corporate Trading Enterprises, Financial Enterprises and General Government to cover the domestic shortfall.

The pattern changed somewhat in 1990-91 (see Chart 2). Demand for funds by Corporate Trading Enterprises decreased, while Households and General Government were both showing net financing requirements. Financial Enterprises provided the funds to cover the General Government deficits, leaving the Rest of the World to provide an increased share of the (much reduced) Corporate Trading Enterprises' requirement. Financial Enterprises also reduced their requirements for capital acquisition.

CHART 2. NET INTER-SECTOR FINANCIAL FLOWS, PERIOD 1990-91, (\$ THOUSAND MILLION)



Key to chart 2

Arrow shows flow from lender to borrower

———— = direct lending/borrowing

..... = intermediated lending/borrowing

finpos = change in financial position

netlend = net lending as shown in ANA capital account

The sum of the flows shown does not equal finpos totals due to 'other financial claims' (mainly accounts payable/receivable) not being allocated by counterparty sector.

The net unallocated amounts by sector are:

Corporate Trading: -3.0

Financial Enterprises: -6.0

General Government: -

Households: 8.9

Rest of World: 0.1

(a) As shown in the December quarter. 1991 release of Balance of Payments, Australia (cat. no. 5302.0)

In both years, but particularly in 1990-91, the estimates for Households were influenced by net errors and omissions in the sources of data and methods used to compile estimates for the other sectors: a large part of the apparent asset holdings of Households is calculated as a residual.

Three main factors contribute to the results for Households:

- the method used to calculate market values for equity on issue by Private Corporate Trading Enterprises, the method used to adjust for price changes and the probable reporting errors by asset holders have resulted in highly volatile flows and levels estimates for Households;
- the turnaround in the balancing item (the difference between the current account and capital account) in the balance of payments between 1989-90 and 1990-91 affected the levels data for the Rest of the World; these were in turn reflected in Household residual assets for “professional” securities markets. Most of the \$5.7 billion balancing item for 1989-90 was attributed to the Household sector, and the turnaround in the balancing item in 1990-91 appears to be inducing “reverse” flows for Households;
- ABS has recently undertaken quality control work on the apparent undercoverage of financial institutions in its surveys. This work has resulted in a reduced estimate for undercoverage for 1989-90, and hence increased apparent Household holdings of “professional” instruments in that year, whereas estimates for undercoverage remained as expected in 1990-91; these two events induced apparent flows.

ABS sees no immediate solution to these difficulties, and investigative work is in progress. Estimates of Household sector assets (flows and levels) and of equity liabilities (flows and levels) should be treated with caution, and are subject to revision.

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